

CENTRAL INTELLIGENCE AGENCY
INFORMATION REPORT

REPORT
CD NO.

COUNTRY: East Germany
SUBJECT: East German Geodetic Service

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SUPPLEMENT TO REPORT NO.

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1. The missions of the Geodaetischer Dienst (Geodetic Service) (GD) in East Germany were approximately the same as those performed by the former Reichsamt fuer Landesaufnahme (Reich Cartographic Service). The GD and the surveying agencies in the individual Laender were assigned to the Main Administration for Surveying and Mapping of the State Secretariat for Domestic Affairs of the Ministry of the Interior. Prior to March 1955, the GD had its headquarters at 15 Erich Zeigner Allee in Leipzig. In early April 1955, this headquarters was moved to 103 Heinrich Mann Allee in Potsdam, a building which had previously housed the Surveying Service of Land Brandenburg, deactivated on 1 April 1955. 1
2. Prior to March 1955, 5 surveying agencies had existed for Mecklenburg, Brandenburg, Thuringia, Saxony and Saxony/Anhalt. After 31 March 1955, the following surveying agencies were in existence:
Surveying Service North (previously Mecklenburg)
Surveying Service South (previously Thuringia)
Surveying Service East (previously Saxony)
and Surveying Service West (previously Saxony/Anhalt)
Just as in the GD, all these surveying agencies were controlled by the Main Administration for Surveying and Mapping. The reorganization of the surveying activities was effected for administrative efficiency and in order to provide office space for the GD.
3. The missions assigned to the Geodetic Service included:
a. Fixing of trigonometric points of the first and second order.
b. Execution of base measuring operations.
c. Execution and further development of precision leveling techniques.
d. Exercise of control of all topographic activities; preparation for gravity measurements.
The GD was organized in several departments, including those for trigonometric measurements, base measurements and precision leveling operations.

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4. The precision leveling department was organized into 18 teams, each consisting of one engineer and 2 assistants. It was the mission of this department to observe and check on the so-called bench marks which generally dated from the time prior to WW II. Most of these bench marks were in the form of miniature iron barrels set in granite stones located on national highways. Leveling operations on the network of main highways were to be completed by 1 August 1955. The same work was scheduled to be completed in Poland and Czechoslovakia by the same time. Tolerances of only 1/10 mm were permitted for the bench marks checked. The purpose of these checks, allegedly, was a scientific interest in the investigation of the shape of the earth. The unusually high costs for the execution of these missions were approved without delay by the government agencies concerned. During the precision leveling operations, source worked in Land Mecklenburg, especially on the Neubrandenburg - Schwerin and the Neubrandenburg - Richtenberg - Stralsund - Greifswald - Anklam lines.
5. Prior to late 1954, leveling operations on the Stettin - Pasewalk - Greifswald - Stralsund - Richtenberg - Demmin - Neubrandenburg - Gransee - Berlin line were completed. Leveling operations were still under way on the Pasewalk - Frenzlau - Templin - Berlin and the Stralsund - Rostock - Wismar - Ludwigsfelde - Perleberg - Berlin lines in March 1955. Leveling diagrams had to be completed by 1 August 1955. In determining levels, a difference was made between lines extending within the GDR, some of which joined again, and lines which extended into Poland and Czechoslovakia and which were called continental loops. For leveling of the latter lines, a medium Km- error of 0.4 mm was accepted. The degree of precision required was, therefore, higher than the exactitude demanded for a leveling of the first order prior to WW II.
6. After the geodetic conference held in Sofia in 1952, the satellite countries and the GDR were ordered to remodel their mapping system after that in use in the USSR. The Soviet mapping system had been worked out by Krasovski. For his maps he chose an ellipsoid differing from the internationally recognized Bessel Ellipsoid. The introduction of the Soviet mapping and surveying system required a new calculation of all trigonometric points and bases. In the summer of 1954, the Gauss-Krueger system was given up in the GDR and the Soviet Krasovski system was introduced in conformity with the resolutions taken in Sofia.
7. In connection with the revision of the mapping systems of their satellites, the Soviets also demanded that map symbols and general principles applied to the Soviet military maps be also used for the new maps produced. Among other things, the Soviets ordered that German maps be provided with additional information on the following items:
 - a. Number of homes in a given locality
 - b. Number of industrial enterprises broken down according to size and type
 - c. Number of bakeries and butcher shops
 - d. Carrying capacity of bridges in tons
 - e. Parking of river fords.
8. Maps establishing the conjunction to the maps of their western neighbors, including West Germany, which are based on different grids, were made by the Soviets on the basis of maps available to them. The maps of neighboring countries were also modified so as to conform to the Soviet mapping system. These maps are being kept up to date.
9. After the geodetic conference in Sofia, the Soviet agencies began the aerial mapping of the GDR. Work was started in Thuringia and completed in Brandenburg. The taking of aerial photographs took so much time that the German authorities could not begin with the evaluation of these photographs until 1954. Evaluation work was started in Thuringia. In late 1954, many land surveyors were transferred from Thuringia to Mecklenburg. No information was available that the evaluation work was completed by that date. In early 1955, work on the determination

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of the points of minor control (Passpunkte) required for the evaluation of aerial photographs was still under way in Mecklenburg. The revision of the East German maps will probably not be completed for another two years. Only maps in the scale of 1 : 25,000 are being produced.

10. The GD has received research orders for testing leveling techniques, the geological service and gravity measurements (Schwermessungen). Radar was not used for the measuring of distances. No information was available concerning the points measured with particularly great exactitude.

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1. [REDACTED] Comment. For organization setup and personnel of the GD, see Annex I.

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Annex 1

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Organization and Personnel of the Geodetic Service in Potsdam, Status 31 March 1955.

- A. Superior Agency: Main Administration for Surveying and Mapping. Head of the Main Administration was surveying engineer Pattalsat. The Basic Measurements Department was headed by one Fliegert; Dipl. Ing. Zappe was attached to this department as an assistant.
- B. The following surveying agencies were in operation:
 Surveying Service North; Chief: Wittig,
 Surveying Service South; Chief: Mayer.
 Surveying Service East.
 Surveying Service West.
- C. Geodetic Service.
 Total of personnel available: about 589, including about 60 engineers. Dipl. Ing. Kramer was acting chief of the Technical Department. Kramer was a mathematician, previously been assigned to the Reichsamt fuer Landesaufnahme (Reich Bureau for Surveying and Mapping). He is an expert in the field of trigonometry and balancing calculation. He was temporarily a lecturer at the Technical College in Dresden.
 Chief of the Personnel Department: Kuehl
 Chief of the Administrative and Financial Department: Lassmann,
 Trigonometric Department.
 Base Measuring Department.
 Precision Leveling Department. This department was headed by Dipl. Ing. Kretschmar who had previously been chief of the Measuring Department for Land Brandenburg at Potsdam. The following Ings's were also assigned: Gerhard Schumann, Edmund Zellhahn, Fritz Lejbke, Werner Rottshahn,
 Twelve young surveying engineers were also employed by the GD.

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Annex 1

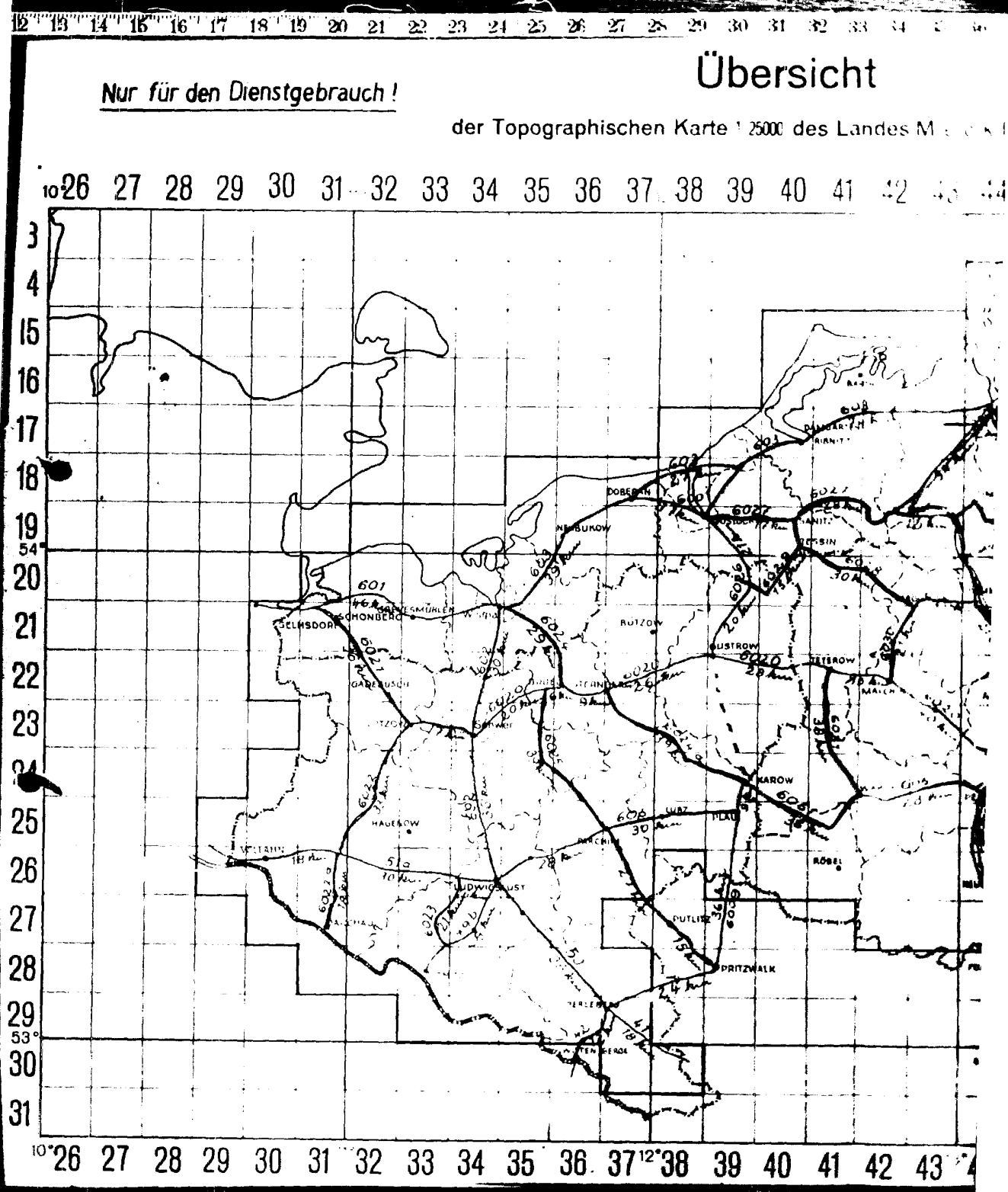
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Key to Map Showing Level Lines in Land Mecklenburg.

Note: The figures of the individual lines are the designations of the former Reichsamt fuer Landesaufnahme for highways, and they also indicate the distance.

1. Of the level lines recorded, the following lines are of the highest exactitude:
 - a. Stralsund - Greifswald - Anklam - Pasewalk - Neu-linken - Polish administered countries.
 - b. Stralsund - Demmin - Neubrandenburg - Fuerstenberg - Berlin.
 - c. Stralsund - Rostock - Wismar - Schwerin - Ludwigslust - Perleberg - Berlin.Lines a and b were surveyed in 1954, work on the surveying of line c was started on 1 January 1955.
2. The following level lines are lines of first order:
 - a. Rostock - Guestrow, surveyed in 1953;
 - b. Karow - Pritzwalk, this line will be surveyed in 1955 and 1956;
 - c. Schwerin - Sternberg - Guestrow - Teterow - Neubrandenburg, was surveyed in 1953 as a level line of second order, but was scheduled to be measured again according to the specification of a level line of the first order in 1955.
3. All the other level lines are lines of second and third order.
4. New bench marks were set up on the Guestrow - Karow line, which has not yet been surveyed, however.

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